



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,953	12/06/2000	Donald Ray Gillis	SJO9-2000-0055US1	1412

7590 03/19/2003

JOSHUA D. ISENBERG  
LUMEN INTELLECTUAL PROPERTY SERVICES  
SUITE 110  
45 CABOT AVENUE  
SANTA CLARA, CA 95051

EXAMINER

RENNER, CRAIG A

ART UNIT	PAPER NUMBER
----------	--------------

2652

DATE MAILED: 03/19/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

2

# Office Action Summary

Application No.  
**09/731,953**

Applicant(s)  
**Gillis et al.**

Examiner  
**Craig A. Renner**

Art Unit  
**2652**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 Feb 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above, claim(s) 2-5, 8, 9, 13-31, 33, and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 7, 10-12, 32, 35, and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6 Dec 2000 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

Art Unit: 2652

***Election/Restriction***

1. Claims 13-31 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 7, filed 19 November 2002.
  
2. Applicant's election without traverse of "Species I", upon which "claims 1-3, 6-12 and 32-36" are identified, in Paper No. 9, filed 24 February 2003, is acknowledged. Claims 2-3, 8-9 and 33-34, however, do not read on the elected species as this species does not include the "burnished surface... adjacent to a contacting sensor" as per claims 2-3 and 33-34, the slider "having a crown" as per claim 8, and the slider "having a camber" as per claim 9. The burnished surface adjacent to a contacting sensor is shown in the species of Figs 5-6, the slider having a crown is shown in the species of Figs. 5-6, and the slider having a camber is shown by the species of Figs. 4 and 6. Accordingly, claims 2-5, 8-9 and 33-34 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim.

***Drawings***

3. The drawings are objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because they include one or more reference signs not mentioned in the description. Note, for instance, "902", "904" and "906" (each shown in Fig. 9, for instance) and "1002", "1004", "1006", "1008"

Art Unit: 2652

and "1010" (each shown in Fig. 10, for instance). A proposed drawing correction, corrected drawings, and/or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 U.S.C. § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2652

7. Claims 1, 6-7, 10-12, 32 and 35-36 are rejected under 35 U.S.C. § 102(b) as being anticipated by Cunningham (US 5,488,524).

With respect to claims 1, 6-7 and 10-12, Cunningham teaches a slider (108/201) being fixated on a slider arm (107) of a hard disk drive (100) and having a burnished surface (601) in a substantially parallel orientation to an opposing hard disk surface (102) (as shown in FIG. 6, for instance), wherein the parallel orientation is defined by burnishing the slider on the opposing hard disk surface (lines 36-40 and 57-59 in column 4, for instance) [as per claim 1]; wherein the burnished surface is placed on an air bearing surface overlapping with a contacting sensor (215) (lines 43-45 in column 4, for instance) [as per claim 6]; wherein the contacting sensor is a magnetic read head (lines 16-17 in column 4, for instance) [as per claim 7]; wherein the burnished surface has an area extension corresponding to a predetermined fly characteristic of the slider (lines 52-55 in column 4, for instance) [as per claim 10]; wherein the burnished surface has an area extension corresponding to a predetermined friction characteristic of a contacting interface between the slider and the opposing hard disk surface (lines 50-54 in column 6, for instance) [as per claim 11]; and wherein the burnished surface is provided by applying a burnishing method (lines 36-40 and 57-59 in column 4, for instance) [as per claim 12].

With respect to claims 32 and 35-36, Cunningham teaches a hard disk drive (100) having a slider (108/201) being fixated on a slider arm (107) of the hard disk drive, the slider having a burnished surface (601) being burnished by an opposing hard disk surface (102) in a substantially parallel orientation to the opposing hard disk surface (lines 36-40 and 57-59 in column 4, for

Art Unit: 2652

instance) [as per claim 32]; wherein the burnished surface is placed on an air bearing surface overlapping with a contacting sensor (215) (lines 43-45 in column 4, for instance) [as per claim 35]; and wherein the contacting sensor is a magnetic read head (lines 16-17 in column 4, for instance) [as per claim 36].

***Claim Rejections - 35 U.S.C. § 103***

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

***Pertinent Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Sugimoto (US 6,178,068) and Smith (US 6,493,184), which each individually teaches a hard disk drive slider with at least one burnished surface.

***Conclusion***


10. Any inquiry concerning the above referenced application should be directed to the examiner, Craig A. Renner, whose telephone number is (703) 308-0559, and whose facsimile

Application/Control Number: 09/731,953

Page 6

Art Unit: 2652

number is (703) 872-9314. The examiner can normally be reached Tuesday through Friday from 7:30 a.m. to 6:00 p.m. E.S.T.

  
**Craig A. Renner**  
**Primary Examiner**  
**Art Unit 2652**

CAR  
March 16, 2003